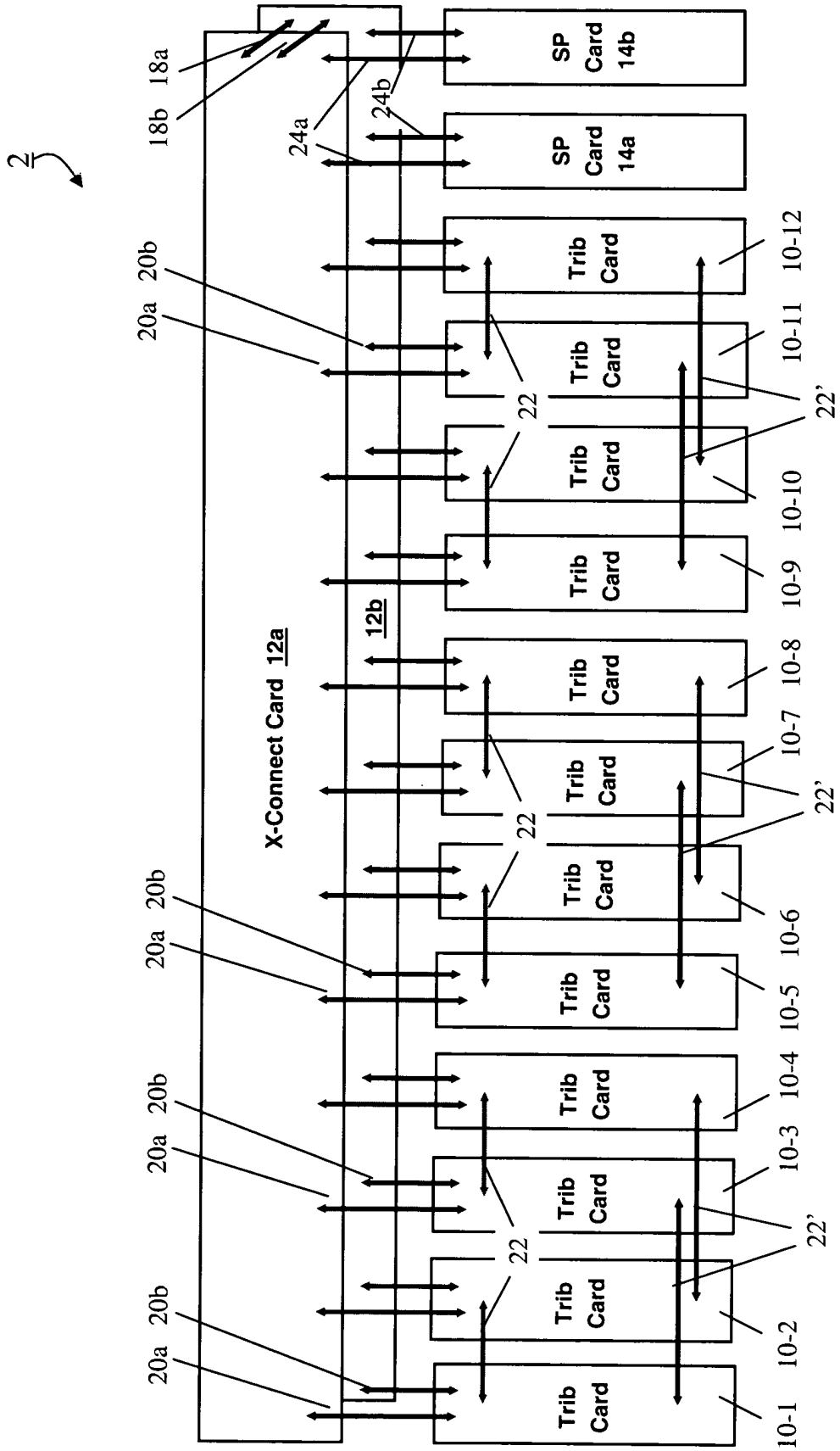
2
18a
18b
24a
24b
SP Card 14b
SP Card 14a
Trib Card
10-12
10-11
10-10
10-9
10-8
10-7
10-6
10-5
10-4
10-3
10-2
10-1
20a
20b
22
22'
X-Connect Card 12a
12b

FIG. 1

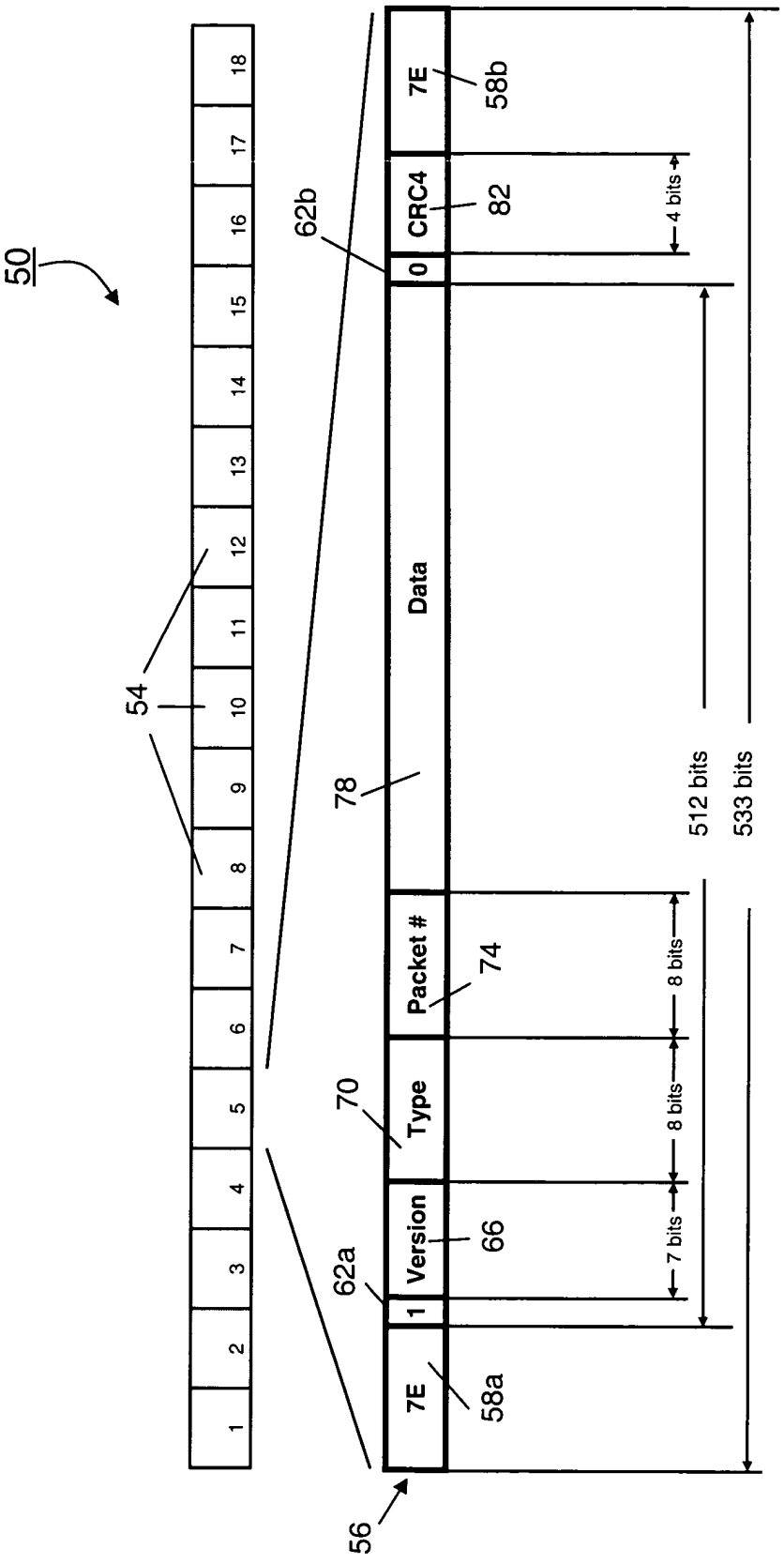
50
54
56
62a
62b
78
70
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
7E
58a
Version
66
Type
Packet #
74
Data
0
CRC4
82
7E
58b
7 bits
8 bits
8 bits
4 bits
512 bits
533 bits

FIG. 2

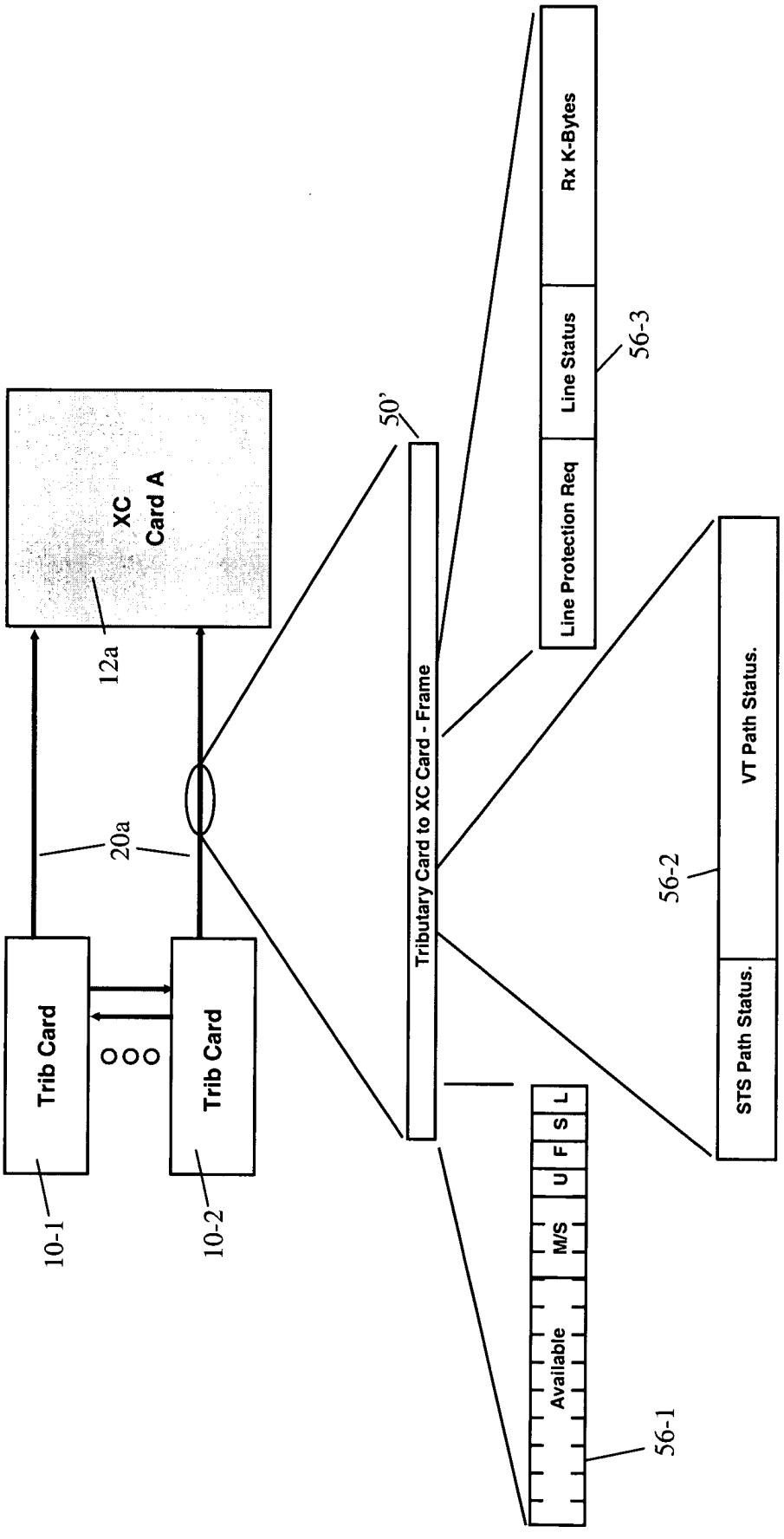
XC
Card A
12a
20a
Trib Card
Trib Card
10-1
10-2
50'
Tributary Card to XC Card - Frame
Rx K-Bytes
Line Status
Line Protection Req
56-3
VT Path Status.
STS Path Status.
56-2
Available
M/S
U
F
S
L
56-1

FIG. 3

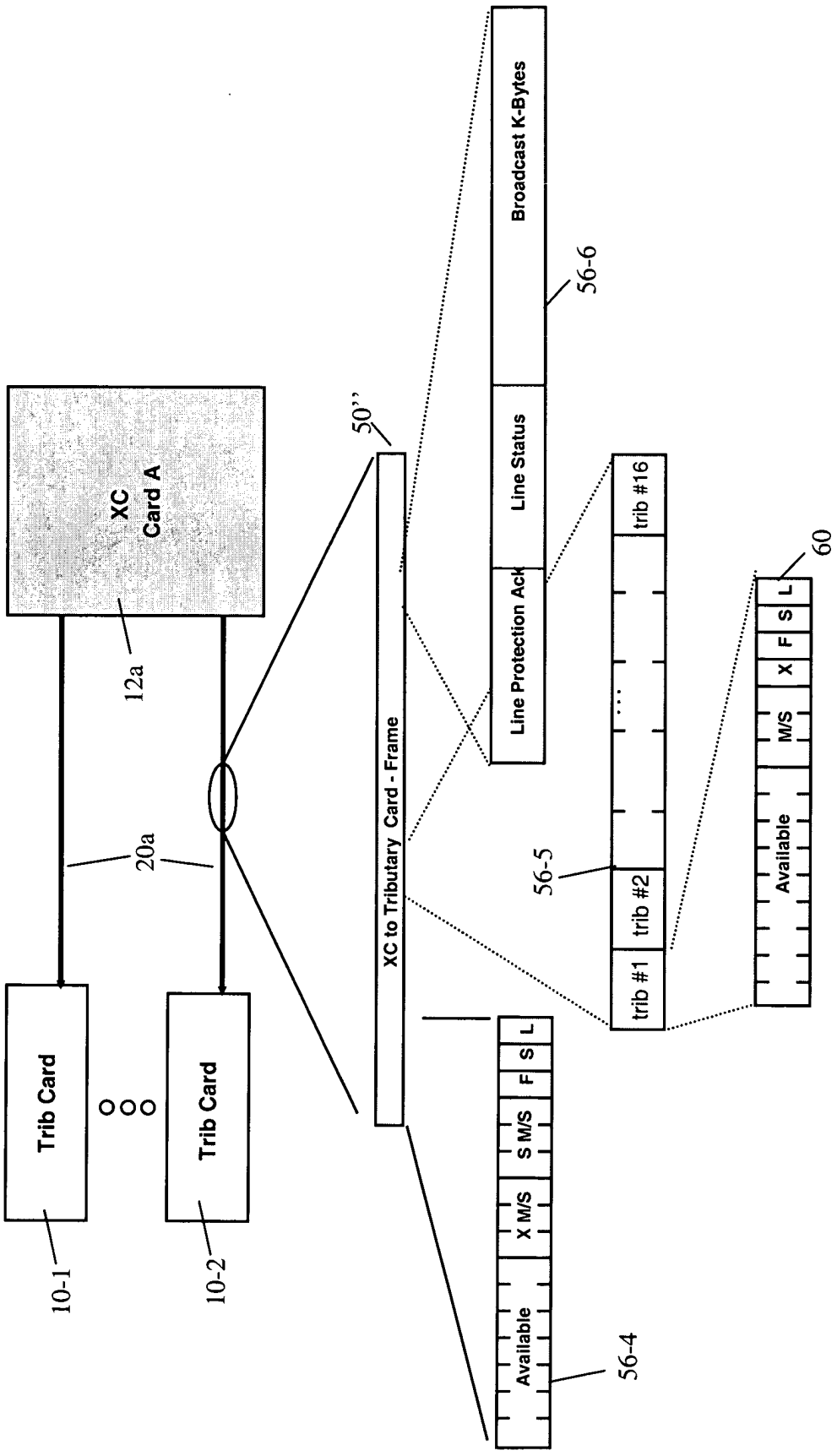
XC
Card A
12a
20a
Trib Card
Trib Card
10-1
10-2
50''
XC to Tributary Card - Frame
Broadcast K-Bytes
Line Status
Line Protection Ack
56-6
trib #16
trib #2
trib #1
56-5
Available
X M/S
S M/S
F
S
L
56-4
Available
M/S
X
F
S
L
60

FIG. 4

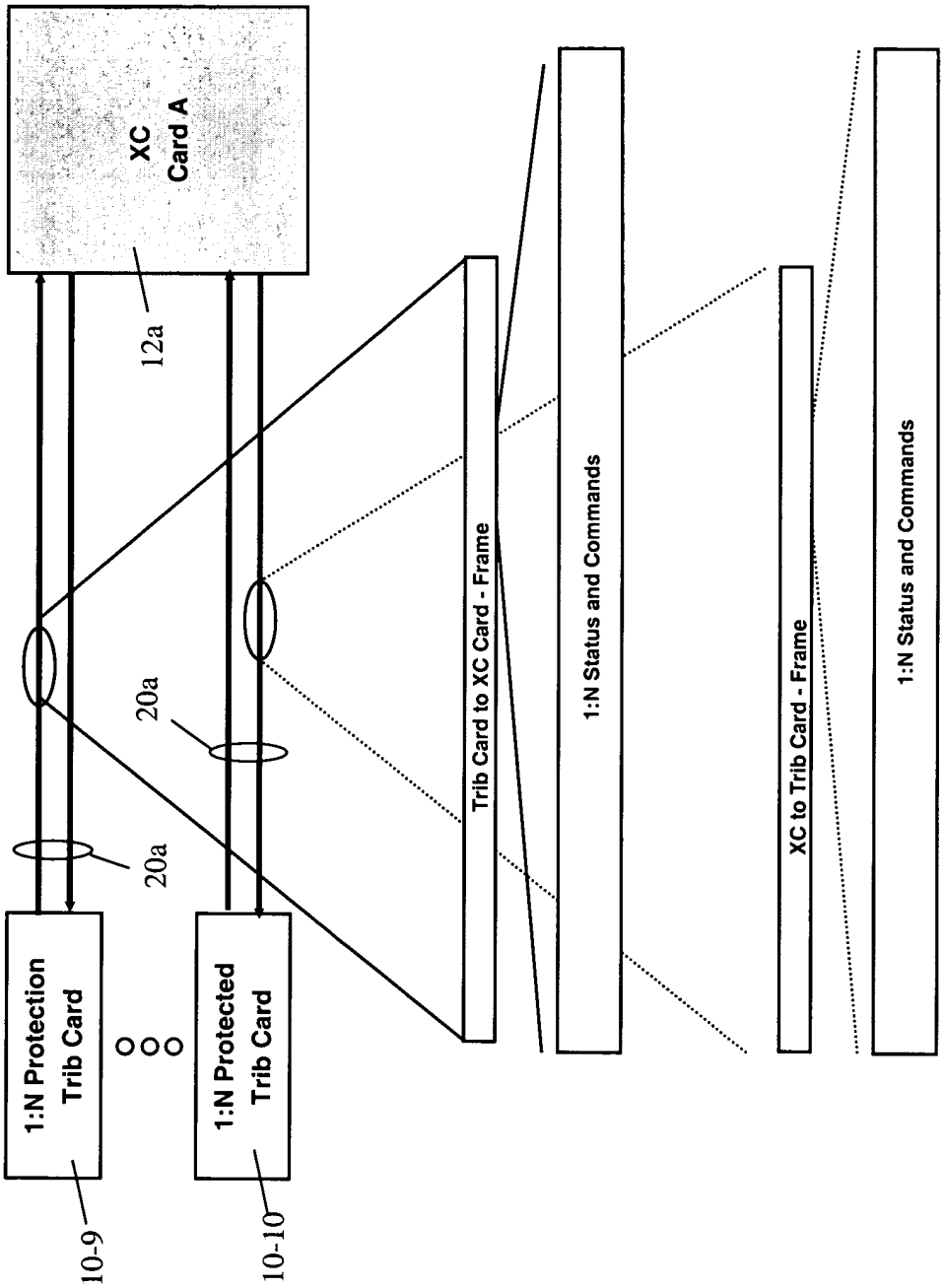
XC
Card A
12a
20a
20a
1:N Protection
Trib Card
1:N Protected
Trib Card
10-9
10-10
Trib Card to XC Card - Frame
1:N Status and Commands
XC to Trib Card - Frame
1:N Status and Commands

FIG. 5

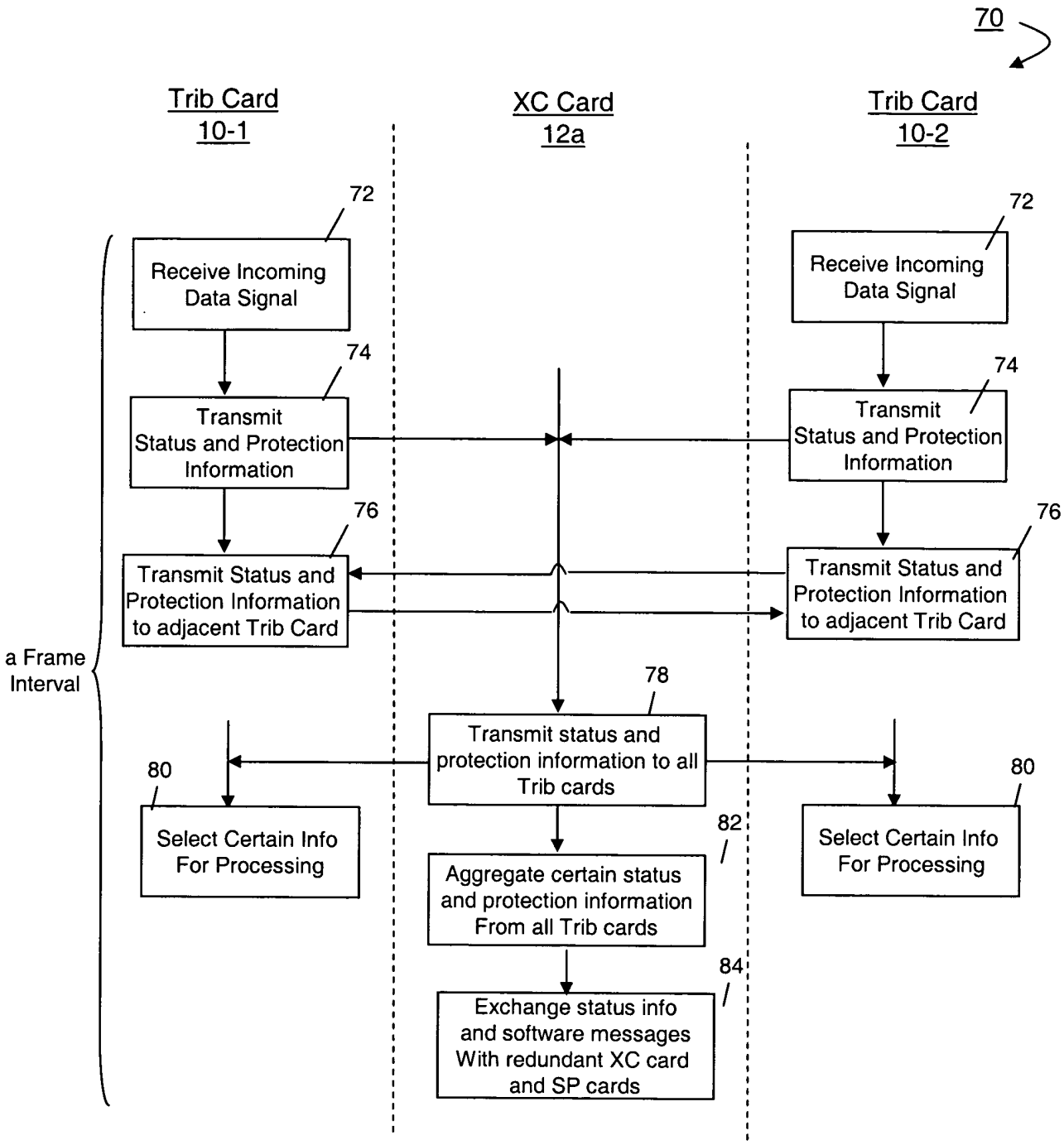
70
Trib Card 10-1
XC Card 12a
Trib Card 10-2
72
Receive Incoming Data Signal
74
Transmit Status and Protection Information
76
Transmit Status and Protection Information to adjacent Trib Card
78
Transmit status and protection information to all Trib cards
80
Select Certain Info For Processing
82
Aggregate certain status and protection information From all Trib cards
84
Exchange status info and software messages With redundant XC card and SP cards
a Frame Interval

FIG. 6

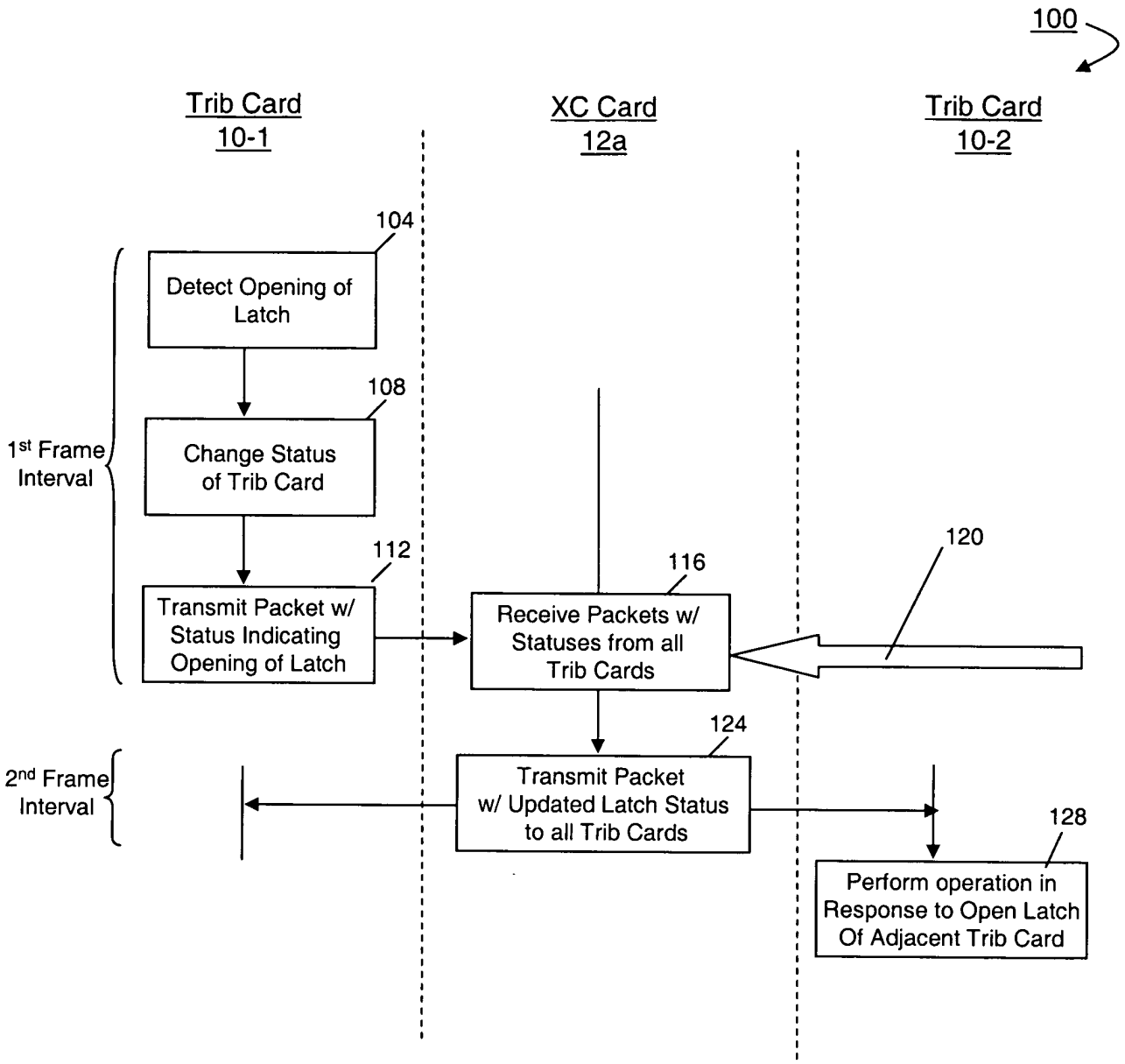
100
Trib Card
10-1
XC Card
12a
Trib Card
10-2
104
Detect Opening of Latch
108
Change Status of Trib Card
1st Frame Interval
112
Transmit Packet w/ Status Indicating Opening of Latch
116
Receive Packets w/ Statuses from all Trib Cards
120
124
Transmit Packet w/ Updated Latch Status to all Trib Cards
2nd Frame Interval
128
Perform operation in Response to Open Latch Of Adjacent Trib Card

FIG. 7

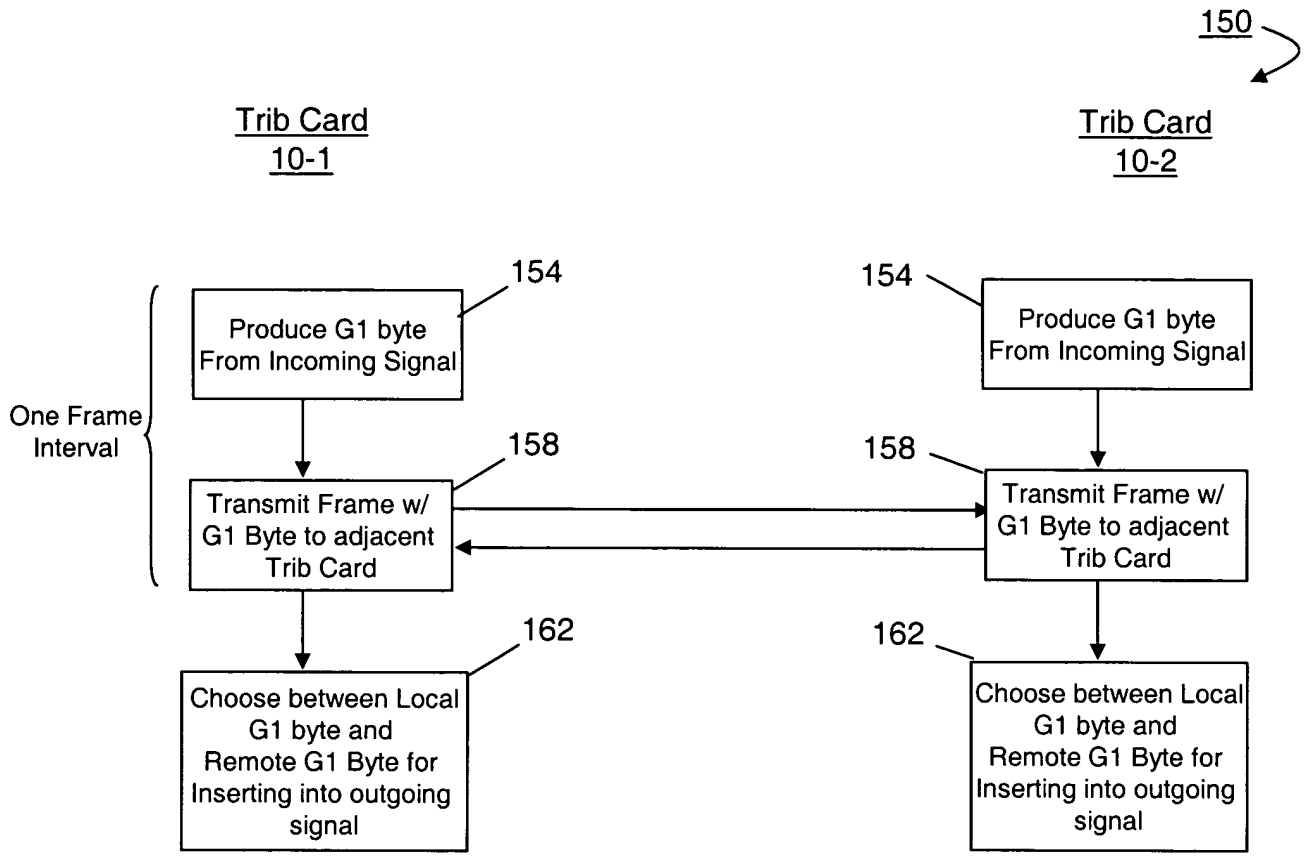
150
Trib Card
10-1
Trib Card
10-2
One Frame
Interval
154
Produce G1 byte
From Incoming Signal
154
Produce G1 byte
From Incoming Signal
158
Transmit Frame w/
G1 Byte to adjacent
Trib Card
158
Transmit Frame w/
G1 Byte to adjacent
Trib Card
162
Choose between Local
G1 byte and
Remote G1 Byte for
Inserting into outgoing
signal
162
Choose between Local
G1 byte and
Remote G1 Byte for
Inserting into outgoing
signal

FIG. 8

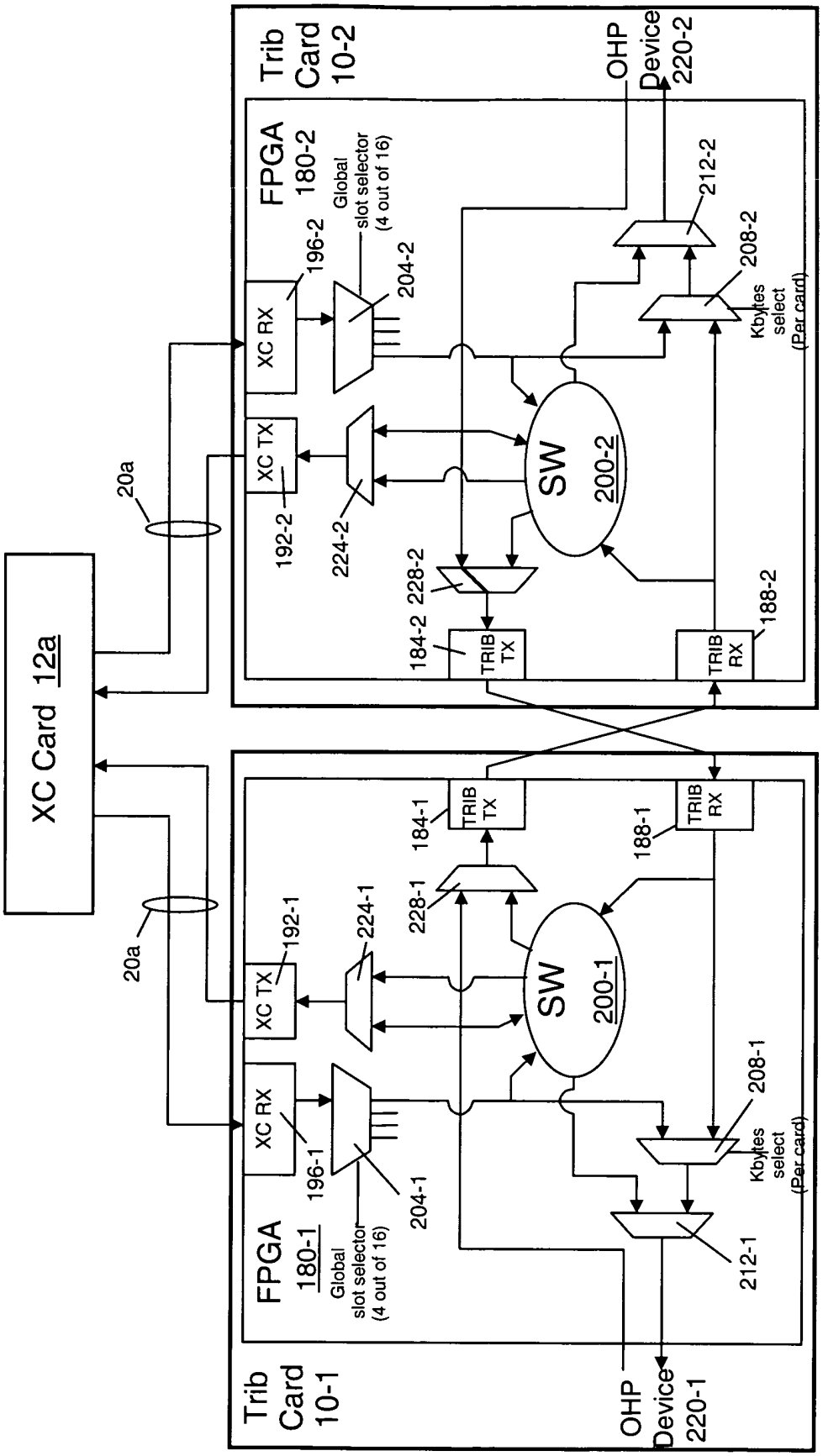
XC Card 12a
20a
20a
Trib Card 10-2
FPGA 180-2
Global slot selector (4 out of 16)
XC RX
XC TX
196-2
204-2
192-2
224-2
SW 200-2
228-2
184-2
TRIB TX
TRIB RX
188-2
212-2
208-2
Kbytes select (Per card)
OHP Device 220-2
Trib Card 10-1
FPGA 180-1
Global slot selector (4 out of 16)
XC RX
XC TX
196-1
204-1
192-1
224-1
SW 200-1
228-1
184-1
TRIB TX
TRIB RX
188-1
208-1
Kbytes select (Per card)
212-1
OHP Device 220-1

FIG. 9

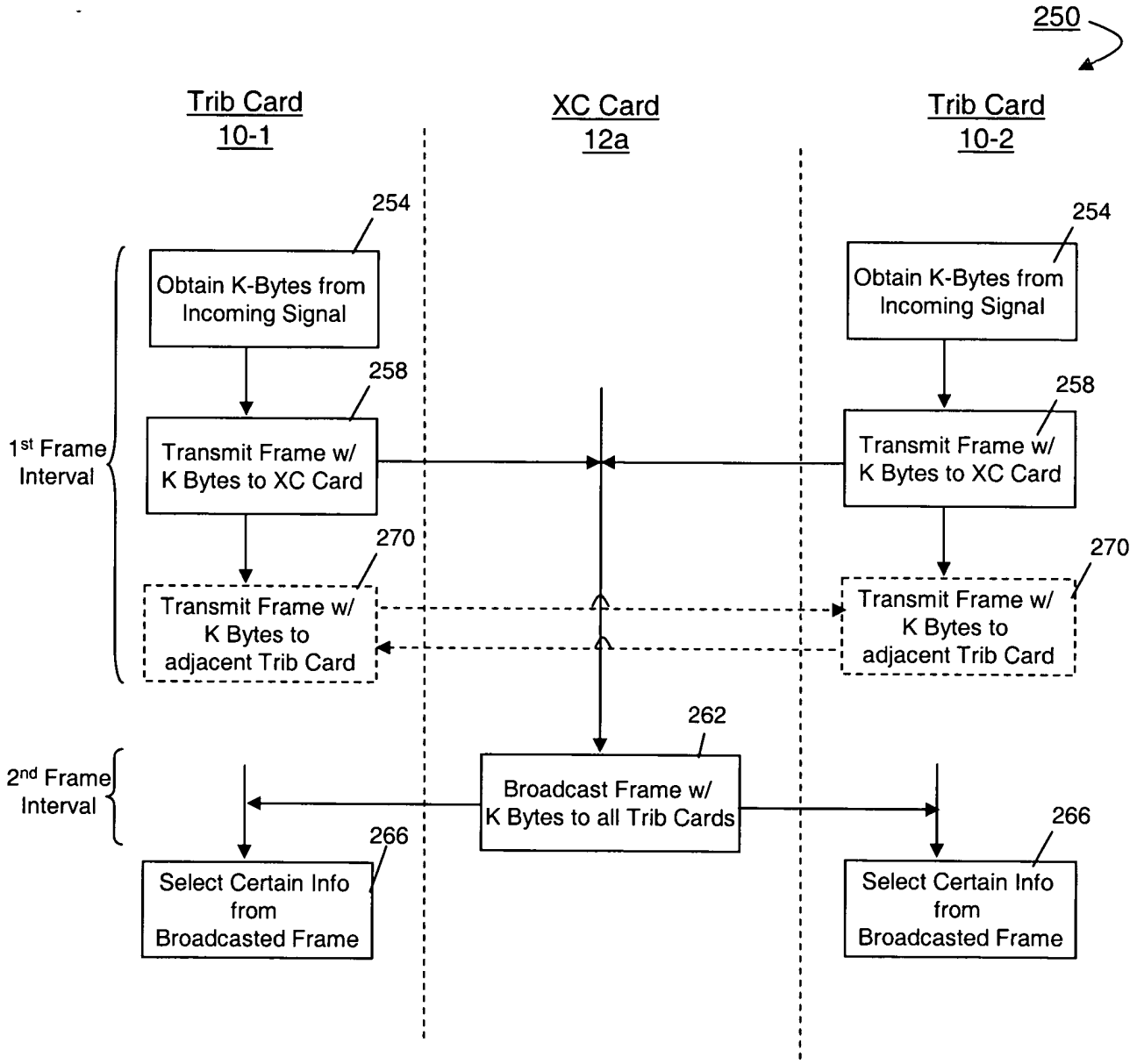
250
Trib Card 10-1
XC Card 12a
Trib Card 10-2
254
Obtain K-Bytes from Incoming Signal
254
Obtain K-Bytes from Incoming Signal
258
Transmit Frame w/ K Bytes to XC Card
258
Transmit Frame w/ K Bytes to XC Card
1st Frame Interval
270
Transmit Frame w/ K Bytes to adjacent Trib Card
270
Transmit Frame w/ K Bytes to adjacent Trib Card
262
Broadcast Frame w/ K Bytes to all Trib Cards
2nd Frame Interval
266
Select Certain Info from Broadcasted Frame
266
Select Certain Info from Broadcasted Frame

FIG. 10